

CLAIMS:

1. Display device (6) comprising:
 - a display (2) with a plurality of light emitting elements (3), and data lines (13) for providing pulse width modulation (PWM) signals to the light emitting elements (3); and
 - means (10,8) coupled to the data lines (13) for generating, during time intervals (SF) of a frame period, at least a first non-zero emission level ($L(V1;C1; I1)$) of a light emitting element (3) during a first one of the time intervals (SF) and a second non-zero emission level ($L(V2; C2; I2)$) during a second one of the time intervals (SF).
2. Display device (6) according to claim 1, wherein the display (2) further comprises selection lines (12), each selection line (12) being coupled to a part of the plurality of light emitting elements (3), the generating means (10,8) being further coupled to the selection lines (12) for applying a multiline addressing scheme to the data lines (13) and the selection lines (12).
3. Display device (6) according to claim 1, wherein the generating means (10, 8) are adapted to generate time intervals (SF) of a substantially binary weighted duration in any order.
4. Display device (6) according to claim 1, wherein the generating means (10, 8) are adapted to generate the first ($L(V1;C1; I1)$) and second emission level ($L(V2; C2; I2)$) via the data lines (13) in a sequential mode.
5. Display device (6) according to claim 1, wherein the generating means (10, 8) are adapted to generate the first ($L(V1;C1; I1)$) and second emission level ($L(V2; C2; I2)$) via the data lines (13) in an intermixed mode.
6. Display device (6) according to claim 3, wherein the generating means (10, 8) comprise a control unit (10), and a data driver (8) comprising a first current source (I1) for

generating the first emission level (L(I1)) and a second current source (I2) for generating the second emission level (L(I2)).

7. Display device (6) according to claim 5, wherein the generating means (10, 8) 5 are adapted to pre-charge the data lines (13) before coupling one of the current sources (I1, I2) to one of the data lines (13).

8. Display device (6) according to claim 1, further comprising a power line (14) 10 for coupling a first supply voltage (V1) to the plurality of light emitting elements (3) for generating the first emission level (L(V1)) and a second supply voltage (V2) for generating the second emission level (L(V2)), respectively.

9. Display device (6) according to claim 1, wherein the generating means (10, 8) 15 are adapted to generate the second emission level (L(V2; C2; I2)) at a level substantially equal to the first emission level (L(V1; C1; I1)) multiplied by a number of selectable combinations of time intervals (SF).

10. Electric device (1) comprising a display device (6) according to claim 1.

20 11. Method for driving a display device (6) comprising a display (2) with a plurality of light emitting elements (3) and data lines (13) coupled to the light emitting elements (3), the method comprising the steps of:
25 – providing pulse width modulation (PWM) signals to the data lines (13); and
– generating in synchronization with the pulse width modulation (PWM) signals, during time intervals (SF) of a frame period, at least a first non-zero emission level (L(V1; C1; I1)) of a light emitting element (3) during a first one of the time intervals (SF) and a second non-zero emission level (L(V2; C2; I2)) during a second one of the time intervals (SF).